



Governor Thomas L. Judge receiving Limited Edition copy of MONTANA AND THE SKY by Frank Wiley. Left to right: Jack Wilson, William E. Hunt, Governor Judge, Frank Wiley.

Vol. 26 — No. 1

### BOOK PRESENTATION TO GOVERNOR

A special issue of Frank Wiley's *Montana and the Sky*, Limited Edition, was presented to Governor Tom Judge by the division of aeronautics in the governor's office. This book is the story of flying in Montana from the earliest days to the 1930's and is especially interesting to those who love aviation because it is the story of individuals and their exploits told with both humor and tragedy and always with deep affection for aviation.

Governor Judge told the author who presented the book to the governor that he thought it was an outstanding contribution to the history of Montana and to aviation and that he appreciated having a copy of the Limited Edition and looked forward to reading it. He and Wiley discussed the preparation of the book and how it happened to be written on a commission from the Montana aeronautics commission. The governor in his talk with Mr. Wiley expressed his hope that Frank would be able to add to the history by additional writing.

Governor Judge is an enthusiastic supporter of aviation.

### AIRPORT LOAN PROGRAM

A recent Montana Supreme Court decision limited the amount of funds that the aeronautics division can loan

to a community without a vote of the taxpayers. The present limit is \$40,000 loaned at 4½% interest payable in ten years in ten equal payments.

When the loan is made upon application after a vote of the taxpayers sponsoring the airport, then the amount that may be borrowed can be greater than the statutory limit of \$40,000.

The division has approximately one half million dollars outstanding in loans at the present time and has approximately \$750,000 available for loans to community sponsors.

It is interesting to note that in the fiscal year beginning July 1, 1973 and ending June 30, 1974 not a single loan was requested or granted. In the present fiscal year commencing on July 1, 1974 a total of \$40,000 has been loaned and requests have been made for an additional \$150,000. All of these loans are being processed and will be made in the near future.

In this time of inflated prices and rising construction costs the lack of requests for loans might lead to a superficial conclusion that Montana airports are not in need of financial help. Any public official, whether he be an airport manager, member of an airport board or authority, city council or county commissioner, can tell you that this is not the case. The need is there but the problem is

meeting the need and loans are generally not the solution, however necessary and helpful they may on occasion be to the sponsor.

The federal grant program has spurred needed construction and repairs to airports but the state also needs to assist local communities with grants wherever and whenever possible.

A grant program to sponsors is not a novel situation considering the long time engineering grants have been made by the division of aeronautics, plus assistance on radio programs, H-Marker programs, beacons, assistance with federal aviation agencies, obtaining local consultants and other matters but the problem continues to grow.

The division of aeronautics spokesman said that a gap exists between the federal grant program of monies collected from the aviation industry and the community efforts to meet those grants with matching funds and the present program of the division of aeronautics is not adequate to fill that gap, but it is going to have to be filled if Montana is to have adequate airports.

### AIRCRAFT REGISTRATION DUE

Deadline date for aircraft registration is **February 15**. If you have not registered your aircraft by that date

(Continued on Page 2)



MONTANA

DIVISION OF

AERONAUTICS

January, 1975

**DEPARTMENT OF  
INTERGOVERNMENTAL  
RELATIONS**

Thomas L. Judge, Governor  
Ronald P. Richards, Director  
Martin T. Mangan, Deputy Director  
**Official Monthly Publication  
of the**  
**DIVISION OF AERONAUTICS**  
City/County Airport  
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William E. Hunt, Administrator

**Board of Aeronautics**

Richard O'Brien, Chairman  
Thomas F. Kiely, Vice-Chairman  
Tom Burris, Member  
William A. Merrick, Member  
Leo Collar, Member  
Bruce Vanica, Member



MONTANA AND THE SKY is published monthly in the interest of aviation in the State of Montana.

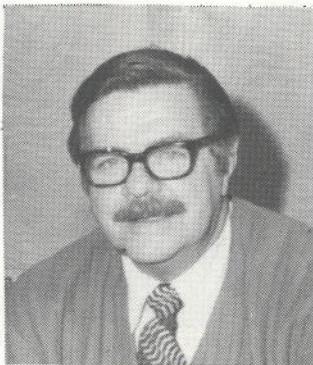
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Edited by: Bernice M. Peacock



**NINETY-FIVE PERCENT  
OF WORLD AIRCRAFT  
GENERAL AVIATION**

Mr. R. Beach, Vice-president of the International Council of Aircraft Owner Association (IAOPA), told the annual convention of the International Civil Aviation Organization at the 21st session of the Organization's annual convention in Montreal, Quebec that at the end of 1972, total number of general aviation aircraft in the world, excluding U.S.S.R. and China, was more than 200,000. The general aviation total represents slightly more than 96% of the world's civil aircraft fleet. The five year increase averages of general aviation aircraft between 1967 and 1972 was almost 12,000 aircraft per year according to Mr. Beach.

*Administrator's  
Column*



When we were at the governor's office for the presentation of Frank Wiley's book, Frank told the governor how he happened to write **Montana and the Sky** and said that a doctor who was writing a book on a disease told him he had better quit researching and get busy and finish the book. Frank said that as a result of that statement he ended his research and told the story of Montana aviation to about 1932, the point his research had taken him when he decided to take the doctor's advice. It is fortunate that Frank received this counciling and put his research into a final form that makes such good reading.

But it does leave a rather long period of time from the present back into the past for someone to fill. When Frank gets back from his vacation in the south we hope he will be ready to start on the second volume of the history of Montana aviation.

Frank was the first director of the aeronautics commission and served in that position from 1945 to 1961.

(Continued from Page 1) you are in violation of the law. If you did not receive an aircraft registration blank, write or call the Division of Aeronautics, P. O. Box 1698, Helena, Montana 59601. (406-449-2506). If you have sold your aircraft during the past year be sure to file a **Transfer Notification**. These may also be obtained from the Division of Aeronautics.

**ATTENTION PILOTS  
FLYING IN THE  
GREAT FALLS AREA**

Due to the high operating speeds of F-106, aircraft pilots operating in the vicinity of Great Falls International Airport should be aware of Montana Air National Guard general operating procedures.

F-106 jet aircraft departures from Great Falls International Airport will normally be from 9:30 a.m. to 10:00 a.m., 2:00 p.m. to 2:30 p.m., and 7:00 to 7:30 p.m. All departures are at the verbal direction of FAA. Runway 21 departures are normally a runway heading climb to 5000 feet MSL and a right climbing turn to an 040° heading. Runway 03 departures normally are runway heading to 5,000 feet then right turn to 040°. Exceptions to the 5000 feet turn may occur when directed by departure control. All F-106 aircraft accelerate to 400K for an IFR climb to assigned altitude.

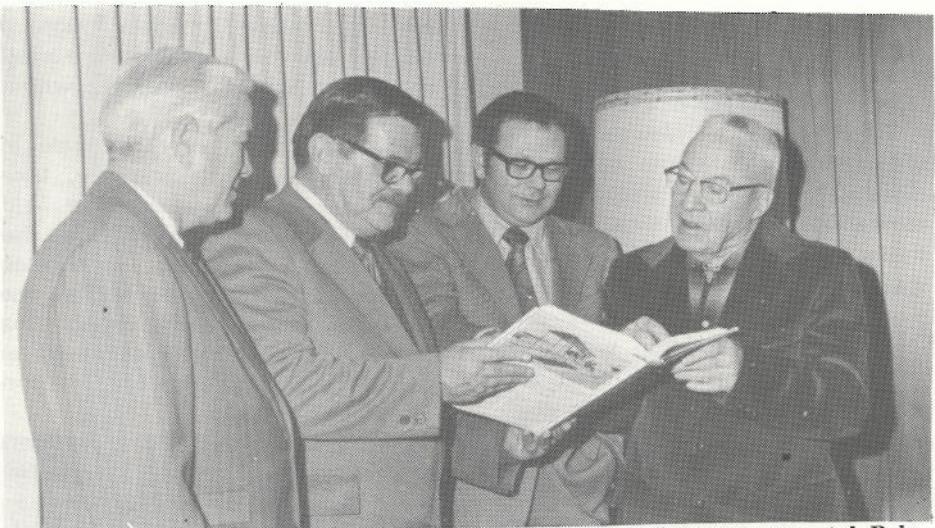
F-106 traffic inbound to Great Falls International Airport under IFR for VFR landing, will usually remain under positive control with Great Falls approach control until released to the control tower, usually about 10NM from the field. Times of peak activity in the traffic pattern normally will be 11:15 a.m. to 12:00 p.m., 3:30 p.m. to 4:00 p.m., and 8:45 p.m. to 9:30 p.m.

Traffic pattern altitude for 360° overhead traffic is 5,700 feet MSL and usually descent is made to pattern altitude by 10NM. Traffic pattern entry is a 3 to 5 mile turn onto runway centerline at 325K. Right hand traffic is used when Runway 21 is in use. Left hand traffic will be used when Runway 03 is in use.

VFR straight-in approach pattern altitude is 5,200 feet MSL. Entry is made 6 to 7 miles out (smoke stack on 21) on runway centerline at approximately 200KIAS. Normally all night approaches are straight-in.

Closed traffic patterns are made by a climbing right (21) or left (03) turn to 5,200 feet MSL to down wind leg at 250K.

(Continued on Page 3)



Ronald P. Richards, Director of the Department of Intergovernmental Relations, receives a copy of MONTANA AND THE SKY. Left to right: Jack Wilson, William E. Hunt, Ronald P. Richards and Frank Wiley.

### DIRECTOR RECEIVES GIFT

Ronald P. Richards, Director of the Department of Intergovernmental Relations, was the pleased recipient of an autographed copy of Frank Wiley's **Montana and the Sky** presented to him by the author on behalf of the division of aeronautics.

Mr. Richards is a pilot and follows Montana aviation with interest and enthusiasm, continuously supporting all phases of aviation, encouraging the non-aviation community to use the facilities so efficiently supplied by airlines, fixed base operators, air charters and everyone else connected with aviation who serves the public.

In accepting the book, Mr. Richards told Frank Wiley and the division of aeronautics delegation that he was especially pleased to have this book that he had long intended to read, and would proceed to do so immediately.

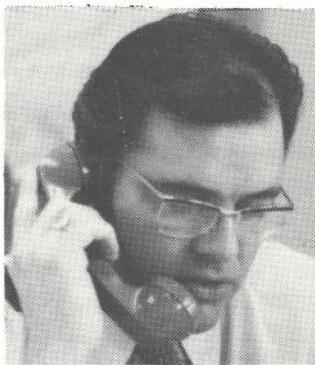
(Continued from Page 2)

Simulated flare out patterns are initiated at 15,500 feet MSL over the runway with a high rate of descent 360° turn to final. SFO's are all terminated in a 200 feet low approach in F-106 aircraft.

It behooves all who fly in the Great Falls area to keep the F-106 pattern and altitudes in mind especially during the times of peak activity. FLY SAFE.

### NO LEGISLATION PROPOSED

By: DAVID C. KNEEDLER, Chief  
Airport/Airways Bureau



Our last issue of Montana and the Sky carried a report on the recent Montana Airport Managers Meeting held in Helena on November 14 and 15. The minutes of this meeting have now been published and many of you may have received copies. We feel it is important to call your attention to an error in those minutes. On Page 2 the first paragraph reads, "the division of aeronautics is introducing legislation for a personal property tax on aircraft".

We wish to point out that for various reasons we are not proposing any legislation in the 1975 session. The legislation referred to is the "Arizona Plan" which was introduced in the last session of the legislature on behalf of this office. You may recall that opposition to the bill re-

sulted in its being "indefinitely postponed." It is indeed unfortunate for the aviation industry that personal property tax that is presently being collected on aircraft in Montana is not being used for airport purposes as this bill would have provided.

We have, however, been informed that Representative Harrison Fagg of Billings, intends to reintroduce the "Arizona Plan" during the present legislative session. We appreciate his efforts and those of others in this matter, notably the Montana Airport Managers Association. We will support the bill in any way possible after its introduction.

### AIR TRANSPORTATION BUREAU

By: MIKE FERGUSON, Chief



The Air Transportation Bureau will submit only a brief news release for the division of aeronautics newsletter at this time. The aircraft pool is going smoothly and we have had steady usage of our aircraft, even though December is normally a slow travel month for state agencies. With the legislature now in session we anticipate our flying requirements will increase rapidly.

As soon as time permits I plan to get around and visit with several fixed base operators in the state and get their views on many of the aviation problems which greatly affect the success or failure of the fixed base operator. The division of aeronautics is very interested in the success of the fixed base operators and any input we can get which may help this important Montana industry will be appreciated and passed on to all concerned.

## BOARD OF AERONAUTICS CHAIRMAN

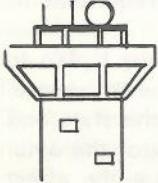


Richard O'Brien, Conrad area rancher, is continuing his fine work as Chairman of the Board of Aeronautics. Mr. O'Brien was elected to the position as Chairman in July, 1972 and after reorganization was appointed to the position by the Governor.

Mr. O'Brien attended schools in Conrad and was graduated from Montana State University, Bozeman, in 1954, with a degree in agricultural engineering. He entered the Air Force and was honorably discharged in 1958. He is presently engaged in farming near Conrad.

He received his private pilot's license in 1951 and from 1958-1961 was a tactical pilot for the Air National Guard. He is a member of the Pondera County Airport Board.

Mr. O'Brien is married, has three children, two boys and a girl. His oldest son is attending the Montana State University at Bozeman and has his private pilot's license.



## TOWER

## OPERATIONS

Total Operations	Instrument Operations
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### NOVEMBER 1974

Billings	9,007	2,198
Great Falls	7,582	1,490
Missoula	5,374	910
Helena	4,321	584

### DECEMBER 1974

Billings	7,115	2,230
Great Falls	6,181	1,715
Missoula	5,125	873
Helena	4,057	626

## PERSONS WITH LITHIUM BATTERY EQUIPPED ELT'S TAKE HEED

The Avionics Newsletter has warned that the lithium battery has disadvantages that outweigh its low-temperature characteristics. It passes these warnings along:

**CAUTION!** DO NOT CUT LITHIUM CELLS OPEN. Gas pressure build-up within the cell case can reach 200-250psi.

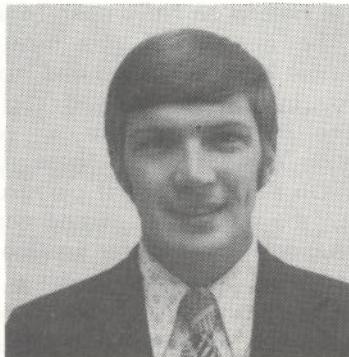
**CAUTION!** Exposed lithium material becomes a potentially incendiary device, developing extremely high temperatures when it comes into contact with moisture.

**CAUTION!** Short-circuiting the contacts of a lithium cell causes it to become hot very quickly. Lithium battery packs usually have internal fusing to prevent high current discharge, but the individual cells in a pack are not fused.

**CAUTION!** A lithium cell may develop an appreciable amount of its rated voltage even though it has been cut open.

## YELLOWSTONE AIRPORT REPORT

By: TED MATHIS, Airport Manager



The financial re-cap for the past ten years' operation at the Yellowstone Airport is now complete. During the past ten years the airport has generated enough revenue to pay all expenses incurred by the state. It

has not, however, made enough to pay for any major maintenance projects which will be necessary within the next few years.

We have been very fortunate in the past in that the runway, taxiways, apron and streets have held up very well and required very little maintenance. However, we foresee a need to seal coat or overlay the runway, taxiway and parking area within the next two years and at present have no funds for this purpose.

The number of airline passengers enplaned and deplaned at the Yellowstone Airport in the past ten years is listed below. This number has shown a stabilizing trend in the past three years. These figures indicate only the airline passengers and do not show general aviation, contract aircraft or charter aircraft figures which have increased greatly in the past few years.

## TOTAL AIRLINE PASSENGERS ENPLANED AND DEPLANED AT YELLOWSTONE AIRPORT

Year	Enplaned	Deplaned	Total
1965	4,400	4,553	8,953
1966	4,852	4,622	9,474
1967	7,150	7,265	14,415
1968	7,328	7,646	14,974
1969	5,466	5,459	10,925
1970	7,160	6,727	13,887
1971	6,435	6,129	12,564
1972	9,857	9,504	19,361
1973	9,958	10,058	20,016
1974	9,670	10,101	19,771
<b>TOTALS</b>	<b>72,276</b>	<b>72,064</b>	<b>144,340</b>

The new crash fire rescue building is nearing completion and will be usable by the time the airport opens. We expect to take delivery of our new crash truck toward the end of May and expect it to be in service by the time airline operations begin. The FAA has also informed us that the Instrument Landing System will be commissioned early this spring and will be in service by the beginning of the season.

These airport improvements should greatly increase the safety and utility of the airport.



Frank Fleisner, Nav-aids Technician, stringing antenna wires between the two 70' poles located 400' apart at Forsyth.

## H-MARKERS

By: Gerald C. Burrows  
Aviation Representative



.. - - - .. 236 KHz

The above identifier "FOR" and frequency 236Khz has been authorized by the FAA and licensed with the FCC for the new **Forsyth NDB** (Non Directional radio beacon).

Forsyth Airport Manager George Tillitt stated that the station was undergoing final testing and should be on the air by the middle of January 1975.

This is the fifteenth "H-Marker" to become operational under the Nav Aids program sponsored by your state aeronautics division. It will be the seventh station to have a public use instrument approach. The IFR procedure requires thorough ground inspections and flight tests before the let-down can be developed. The FAA hopes to have this accomplished

by the end of March 1975.

## EUREKA

The town of Eureka is located in a beautiful valley seven miles south of the Canadian border in western Montana. The mountain tops, over a mile high from the valley floor, are often obscured with clouds even though it is clear below, making Eureka a prime location for an H-Marker.

The counterpoise system (4,000 feet of buried wire with sixteen radials like the spokes of a wheel) has

been installed. At the end of each of the sixteen spokes a six foot ground rod is driven into the ground. Frank and I soon discovered that this was impossible. Below the 10-12 inches of top soil is the biggest pile of rocks and boulders we ever encountered. Without the help of the local pilots and Lincoln County we'd still be there. Al Luciano, rancher and local pilot, with his back hoe dug a seven foot hole at the end of each radial and we literally buried the ground rods.

The foreman of the Lincoln County road crew at Eureka, Jess Bolen's expertise with the county road grader, made short work of opening and backfilling the ditches for ground wires.

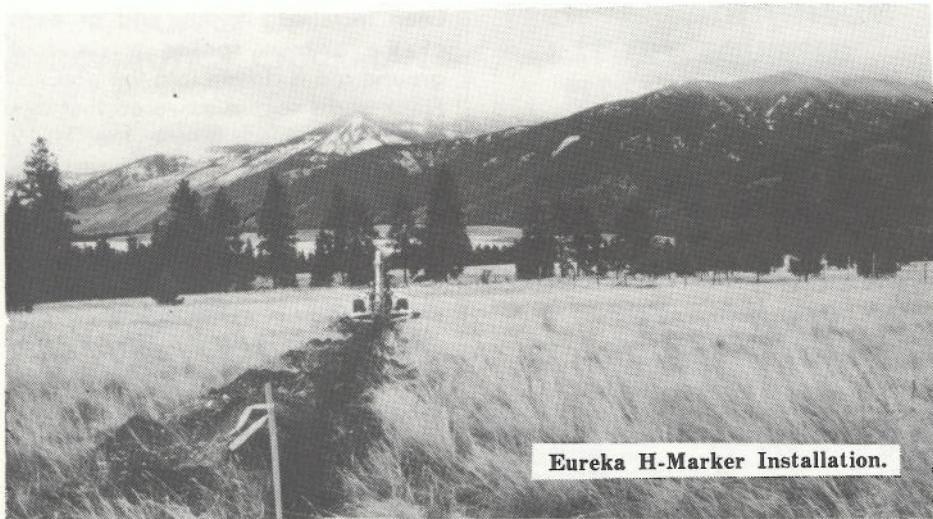
Leo Collar, Lincoln County Commissioner and Aeronautics Board member, was one of the many visitors showing interest in the project. We wish to thank all of the good folks in Eureka for their assistance in getting the H-Marker started.

We are presently awaiting shipment of the 86' steel tower from the factory in Texas. The 86' guyed tower in conjunction with the 100 watt transmitter has reception of over 250 miles in the flatter south-eastern part of the United States. We are in hopes of superior performance for Eureka, utilizing this newly developed structure.

(Continued on Page 6)



Grader and front end loader opening the 12" ditches for the Eureka ground plane system.



Eureka H-Marker Installation.

(Continued from Page 5)

It will be at least six weeks before the FCC license is received and the station can become operational.

#### CIRCLE

Circle is also in the construction stage with the counterpoise system installed. FAA approval is pending for an instrument procedure with commissioning of the station still three to four months away.

**Harlowton** is the next community expected to enter into an agreement for an H-Marker with Libby also high on the list.

We will appreciate any comments concerning our H-Marker program and will be happy to answer any inquiries from your airport board, commission, or any part of your local government.

#### CONGRATULATIONS



#### FAA CERTIFICATES ISSUED RECENTLY TO PILOTS

##### STUDENT

John Richard Philbrook, Wolf Creek

##### PRIVATE

Johnny D. Brumfield, Billings  
Craig D. Snodgrass, Big Timber  
Darrell D. Sackman, Glendive  
Elizabeth F. Sinclair, Billings

Larry E. Wilkerson, Miles City

Fredrick L. Johnson, Myers  
John C. Sullivan, Livingston  
John L. Giesick, Billings  
Sally Ann Lynch, Billings  
Charles J. Harman, Billings  
Greg K. Moors, Shepherd  
Benny R. Minow, Olive  
Annette S. Chlapowski, Billings  
Glen O. Stenehjem, Glasgow  
Tom N. Wolfe, Glasgow  
Walter R. Botts, Custer  
Rolland E. Dibble, Billings  
Ronald L. Ferguson, Billings  
Leslie L. Haight, Helena  
Eugene J. Vogl, Billings  
Dan Coca Rios, Cut Bank  
William Blaine Downs, Jr., Helena  
Robin Wayne Crist, Anaconda  
Ronald Morrell Crosby, Helena  
Jeff Keith Cornell, Great Falls  
Richard James Goodhart, Bozeman  
Howard Scott Hash, Whitefish  
Donald Irvin Stanfield, Bozeman  
David Francis Bruce, Bozeman  
Donald Joseph Bielenberg, Spokane,  
Washington  
Evert Tunis Wierda, Manhattan  
Stanley Arthur Bain, Kalispell  
Loren Karl Dommer, Ledger  
David Leigh Bouffard, Great Falls  
Keith Edward Richardson, Havre  
Raymond Ross Maki, Belt  
Bradley Edward Dugdale, Havre  
Michael Francis Shortell, Havre  
Warren Phillip Weigand, Sun River  
Douglas Noel Stuart, Harlem

##### COMMERCIAL

John J. Kopczynski, Jr., Billings (MEL)  
Lyle A. Morris, Dillon

Lee Donald Veltum, Great Falls  
Ronald Dean Niccum, Great Falls  
Harold James Cross, Kalispell (MEL)  
John Henry Nichols, Big Sky  
(CRH, IRHMC)

#### INSTRUMENT

Barry Joseph Lee, Missoula  
Jack Thomas Martinell, Whitehall  
Raymond Joseph Brennan, Great  
Falls (FIA, ASME)  
William John Westfall, Great Falls  
(CASELMC)  
Ricky A. Bjelkevig, Billings  
Constantin von Alvensleben,  
Long Beach, California  
Philip E. Blankenship, Wolf Point  
Robert W. Ferguson, Big Timber  
Joseph O. Etchart, Glasgow

#### FLIGHT INSTRUCTOR

Paul Willard Thurmond, Butte  
(ASME) (Reinstate)  
Neil Allen Cloyd, Livingston (ASE)  
Gary J. Martin, Malta (ASME, IRA)  
(Reinstate)  
Gene J. Etchart, Glasgow (ASME)  
(Reinstate)  
Louis R. Link, Billings (MEL)  
William A. Miller, Miles City (ASE)  
(Reinstate)

#### GROUND INSTRUCTOR

Wayne Aaron Dykstra, Missoula  
(AGI)

#### AIRFRAME MECHANIC

Clifford W. Schultz, Glasgow (PM)

#### DEATH OF SUPREME COURT JUSTICE STANLEY M. DOYLE

We learned with regret that former Supreme Court Justice Stanley M. Doyle of Polson, Montana, passed away January 17, 1975 and was buried at Polson on January 20. The Masonic Lodge of Polson put on the services in the Polson Masonic Temple. The eulogy was given by Judge Wesley Castles. Jack Wilson, an old friend of the Judge was one of the pallbearers.

Judge Doyle wrote the preface to Frank Wiley's book, **Montana and the Sky**, paying tribute to both the writing and to the author. Judge Doyle was a member of the Dedaliens and was an Army pilot in World War I.

## PILOT REGISTRATION DUE FOR 1975

If you have not registered as a pilot and are flying in the state of Montana, you are violating the law. If you have not received your 1975 registration card, contact the nearest fixed base operator or write the Division of Aeronautics, P. O. Box 1698, Helena Montana 59601 and request one. **April 1 is the deadline date for registration.**

**PLEASE DO NOT USE THE SAMPLE SHOWN BELOW.** This is not a valid registration card. The registration fee is \$1.00 per year for which registered pilots will receive an aeronautical chart, revised airport directory, monthly subscription to this newsletter, and pertinent information of interest to pilots that might be published by the Aeronautics Division throughout the year.

### UNICOM STATIONS

The Federal Communications Commission is making a nationwide check of all aeronautical advisory (Unicom) stations to insure compliance with their rules. Specifically they will ask to see the Radio Station License which must be prominently displayed near the radio; they will ask

for the operator's permit for all persons using the unicom; and will then check to determine if each radio contact is properly recorded in a log book listing hours of operation, frequency, signature of operator and hours of duty of operator.

Non compliance may mean a suspension of the station or a revoked station license.

If you have any questions concerning the FCC Rules & Regulations, need a log book or an application for a radio operator's permit, please let us know.

### RE-EXAMINATION

Are you about to **retake** an FAA flight or ground examination? You say this will be your third attempt? A recheck of FAR 61.49 will show that an applicant who has failed either a flight or ground test for the second time must wait 30 days before re-examination, **regardless** of the amount of authorized instruction.

The re-examination of an applicant within a 30 day period is permitted **only** on the second attempt and with a statement from an authorized instructor.

### RESCUE BY PILOT

The following interesting item was noted in "Flight Plan", the newsletter of the Maryland Aviation Administration.

Robert Corson of New York City was instrumental in aiding Mrs. Martha Waite of Rockville, Maryland, to make a safe landing in the family's Piper Cherokee at McGuire Air Force Base, New Jersey, after her husband, William, suffered a heart seizure and died. Mrs. Waite had never flown an airplane before.

Federal Aviation Administrator Alexander Butterfield sent the following telegram to Mr. Corson:

"The heroic action you took in the air over New Jersey was directly responsible for saving three lives and averting a terrible tragedy."

"Your calming influence on the occupants of the stricken aircraft, and particularly your confidence-inspiring assistance to Mrs. Waite during that critical and frightful time clearly reflects a high degree of aviation professionalism."



### CALENDAR

**January 31-February 1, 1975** — FAA Rocky Mountain Golden Sentinel Flight Safety Team Presentation, Lewis & Clark Junior High School Auditorium, Billings.

**February 10-11** — National Air Transportation Association Annual Convention and Membership Meeting, Atlanta Internationale Hotel, Atlanta, Georgia.

**March 17-21** — Flight Instructor Refresher Course, Montana Division of Aeronautics, Travelodge, Helena.

**April 4-5** — Alberta Convention of Flying Farmers, Red Deer, Alberta.

**April 17-20** — National Precision Flight Championships, in conjunction with National Intercollegiate Flying Association 1975 Annual Air Meet and Conference, Santa Fe, New Mexico.

1974	1975	1976	1977	1978
<b>Pilot Registration --- Montana Aeronautics Division</b>				
Box 1698 Helena, Montana 59601				
Name (Please Print)	Last	Initial	First	No. (Leave Blank)
Mailing Address				
City	County	State	Zip	
FAA Certificate No.	Total Hours	Est. Hrs.	Last 12 Mo.	
<b>LICENSE RATING</b> (Check) Student <input type="checkbox"/> Private <input type="checkbox"/> Commercial <input type="checkbox"/> Airline Transport <input type="checkbox"/> Instrument <input type="checkbox"/>				
<b>&amp; ACTIVITY</b> (Check) Flight Instructor <input type="checkbox"/> Active Flight Instructor <input type="checkbox"/> Private Business and Pleasure <input type="checkbox"/> Employed Commercial Aviation <input type="checkbox"/>				
By _____ Name of Company _____ I affirm on oath that the foregoing is true and correct. Signature _____ Date _____				
<small>\$ .50 of annual registration fee is for subscription to monthly publication "MONTANA AND THE SKY".</small>				

**Less than half of Montana's Pilots and Aircraft Owners have registered with the Division of Aeronautics for 1975. The Division would like to urge all Montana Pilots and Aircraft Owners to please hurry and register.**

## WINTER SAFETY TIPS

The following winter safety tips were borrowed from Idaho's Rudder Flutter because they are so well worth everyone's attention.

Winter flying can be as safe as flying in the summer if the pilot will use a little extra caution and exercise good judgment in analyzing his enroute weather. Some tips which will help are as follows:

Thoroughly preflight your aircraft and check the following locations of ice, slush and snow: pitot tube, static tube, static prop, gear switches, oleo struts, intake ducts, wings and control surface areas. Make sure the aircraft is entirely free of frost, ice or snow before departing, it won't blow off on takeoff, it acts as a spoiler

and you will fail to obtain the proper lift.

Familiarize yourself with your aircraft and engine handbooks in order to know intimately all systems and the recommended winter operation procedures.

Remember winter's low temperatures can change the viscosity of engine oils, reduce the effectiveness of the storage battery, and precipitate malfunctions in various component parts of your aircraft with little or no warning. For this reason, engine preheat is essential for the engine as well as the cockpit area.

Winter daylight hours are few and plan your flight accordingly. If your night experience is limited, be aware that night operation in winter can

impose additional hazards.

Have your heater inspected to guard against carbon monoxide.

Check the controls for freedom of movement.

Do not take off in freezing rain.

Keep the windshield clear. Make certain that the heater and defrosters are operative.

If you have any doubts about the airport surface conditions, ask the Flight Service Station for a report. If they do not know, telephone ahead.

We regret that we do not have enough room for the remainder of the article, but will try to include it in a later issue. Thanks to the Idaho Division of Aeronautics and Public Transportation for making this valuable information available.

### MEMBER NATIONAL ASSOCIATION OF STATE AVIATION OFFICIALS

PURPOSE:—“To foster aviation, as an industry, as a mode of transportation for persons and property and as an arm of the national defense; to join with the Federal Government and other groups in research, development, and advancement of aviation; to develop uniform laws and regulations; and to otherwise encourage co-operation and mutual aid among the several states.”

P. O. Box 1698  
Helena, Montana 59601



JANUARY, 1975

Second-Class  
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